

2020 System Evaluation and Capacity Assurance Plan and Nexus Study

South Placer Municipal Utility District



Carie Huff, District Engineer
Eric Nielsen, Assistant Superintendent

February 2020

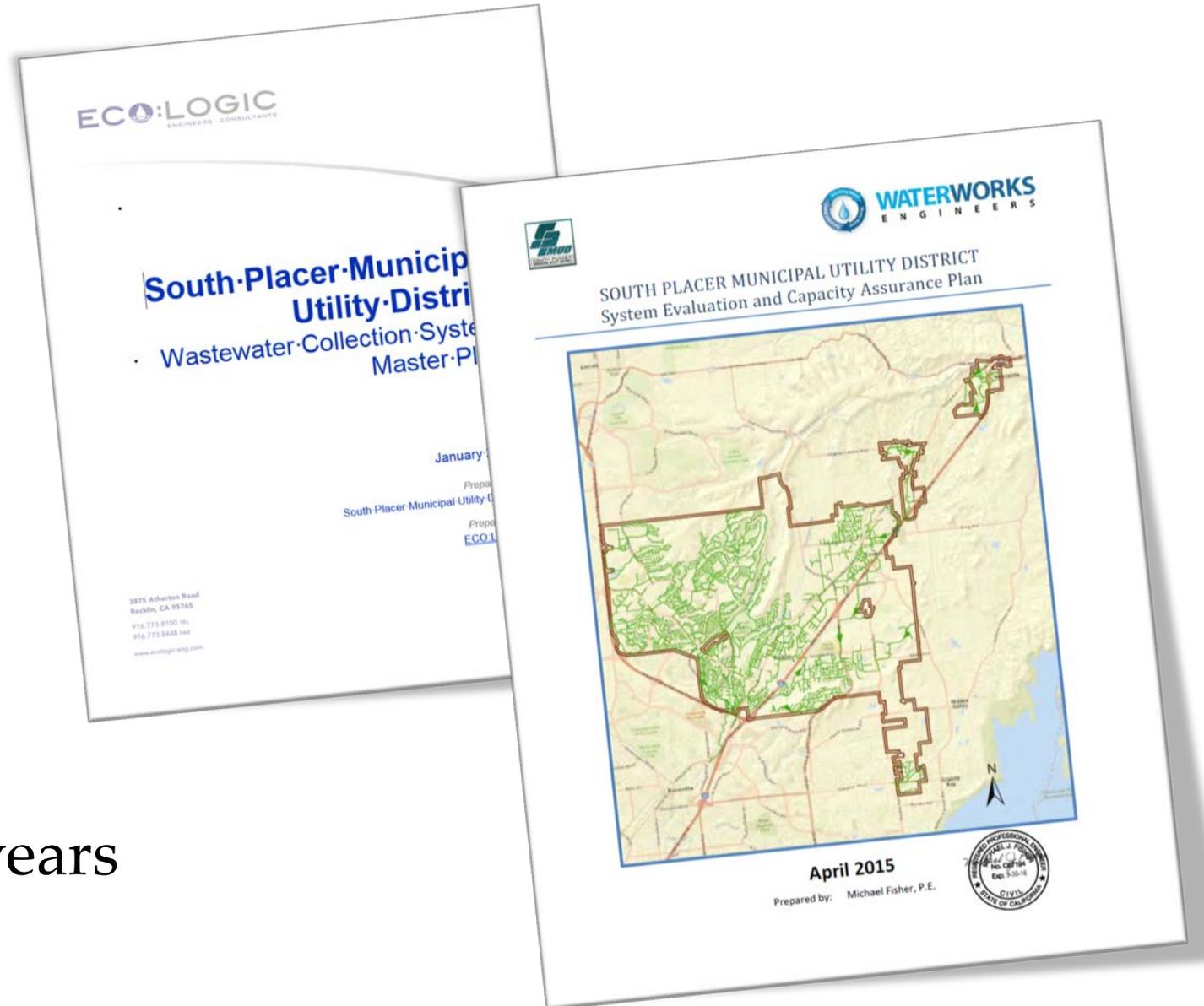
Objectives

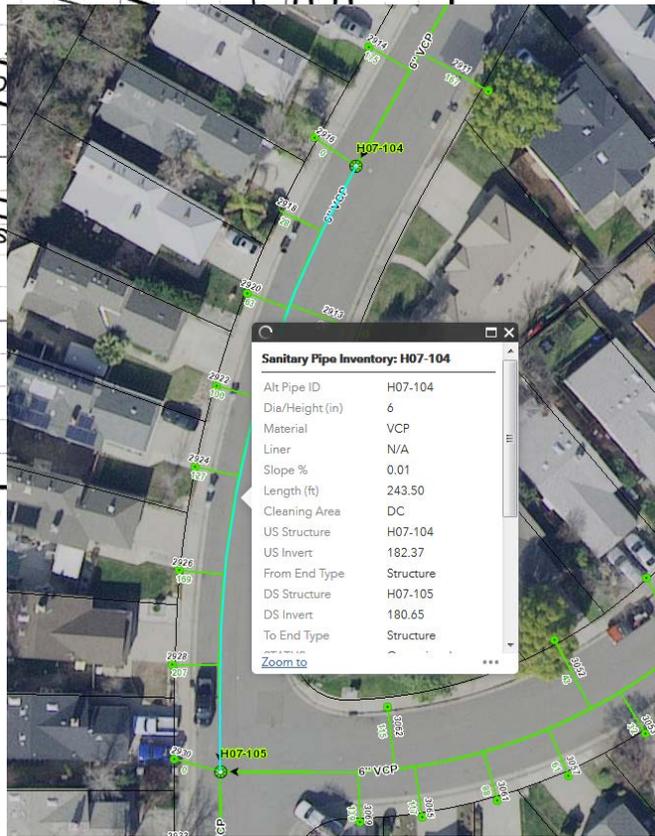
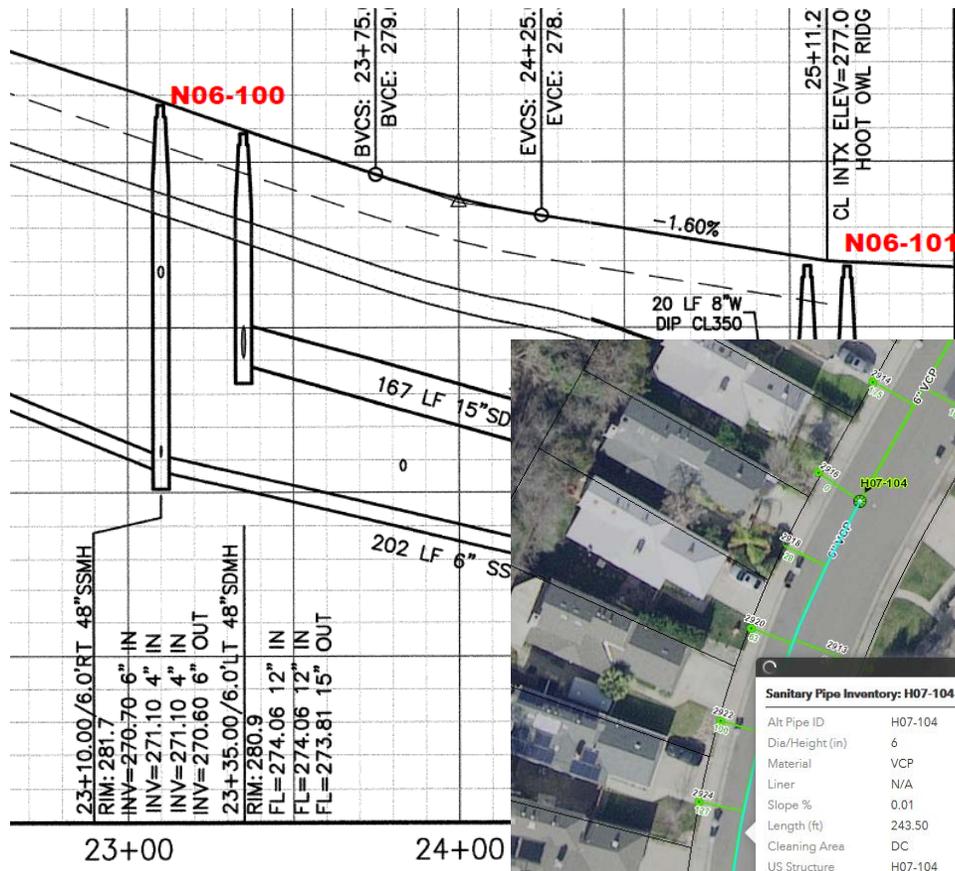
- Compliance
 - General Waste Discharge Reqs
 - Nexus Study
- Sustainability
 - Repeatable process
- Leverage investments in technology
 - Model for use during project/plan review



Timeline

- 2009
 - Master Plan
- 2015
 - SECAP
- 2020
 - SECAP Update
- Update SECAP every 5 years

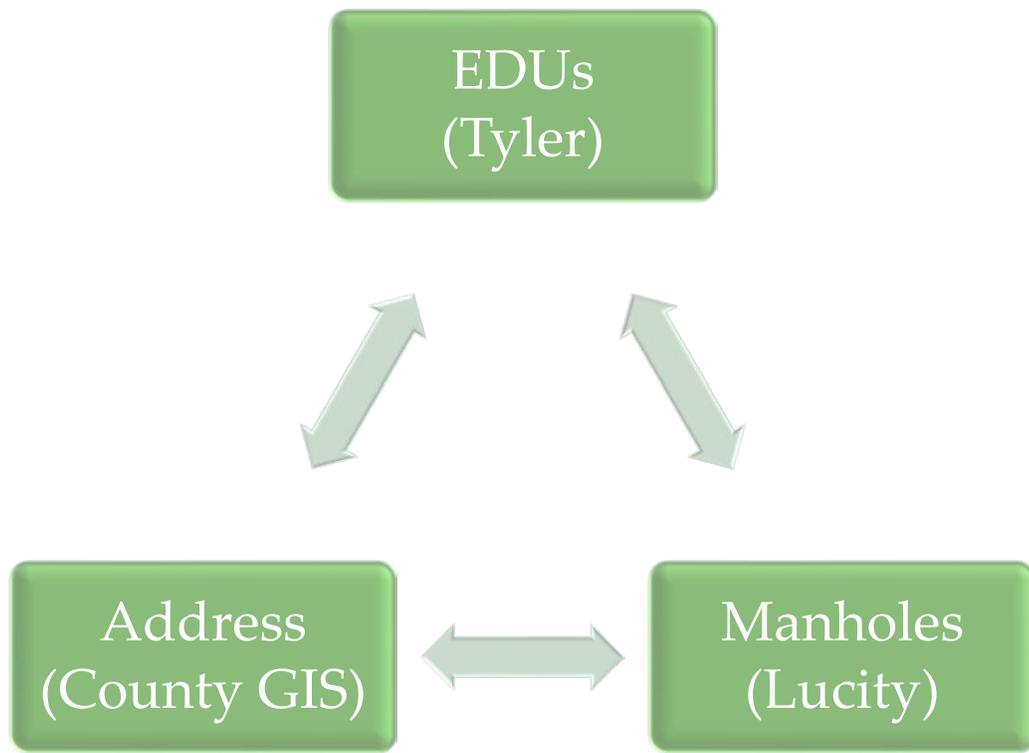




Physical Model

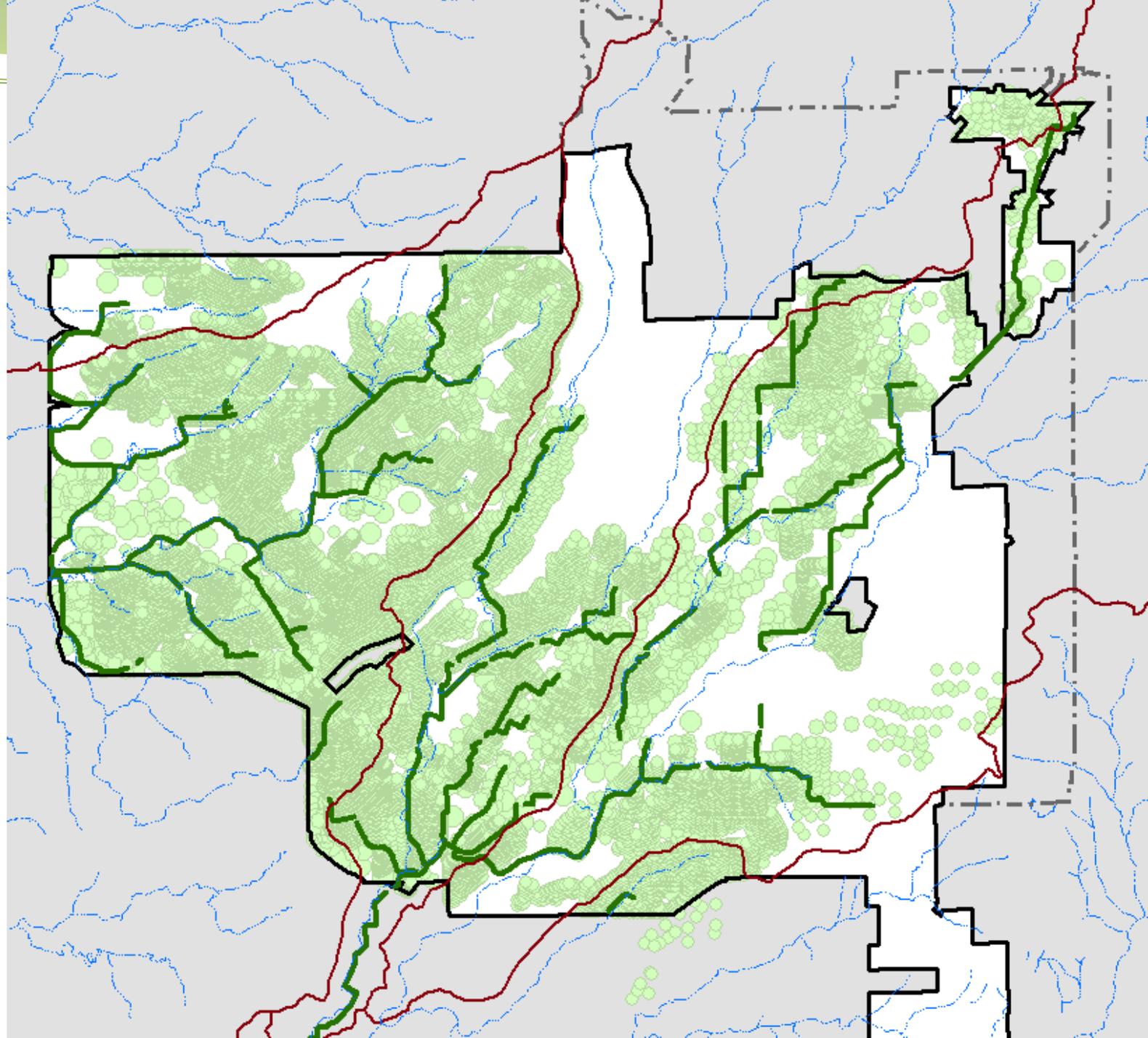
- Model all pipes in system
- Data input
 - pipe invert elevations
 - manhole rim elevations
- Stored in GIS for other uses

Hydraulic Loading



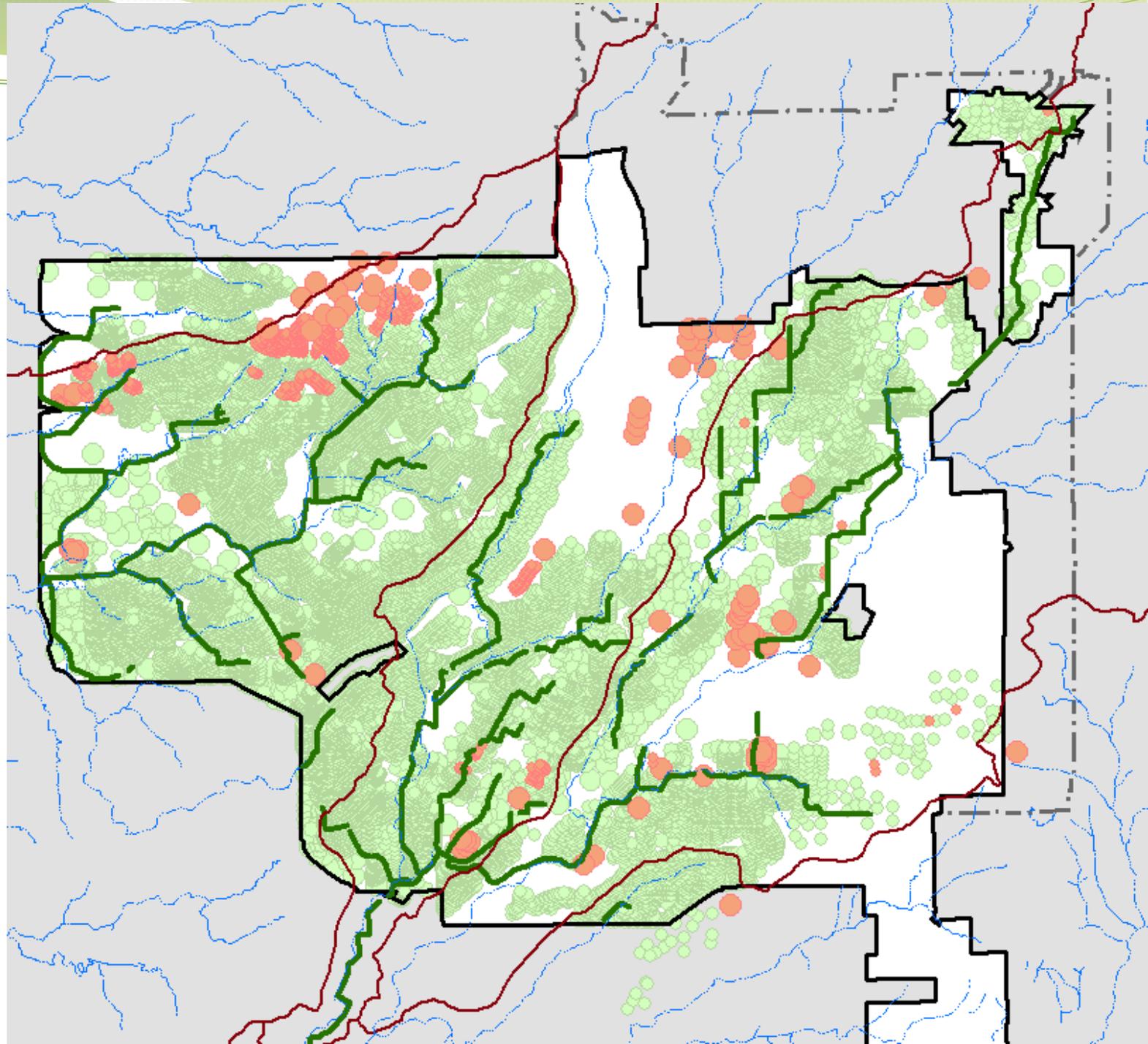
Existing

- Year 2020
- Calibrate against flow recorder data
- 190 gpd/EDU
 - (same as SPWA)



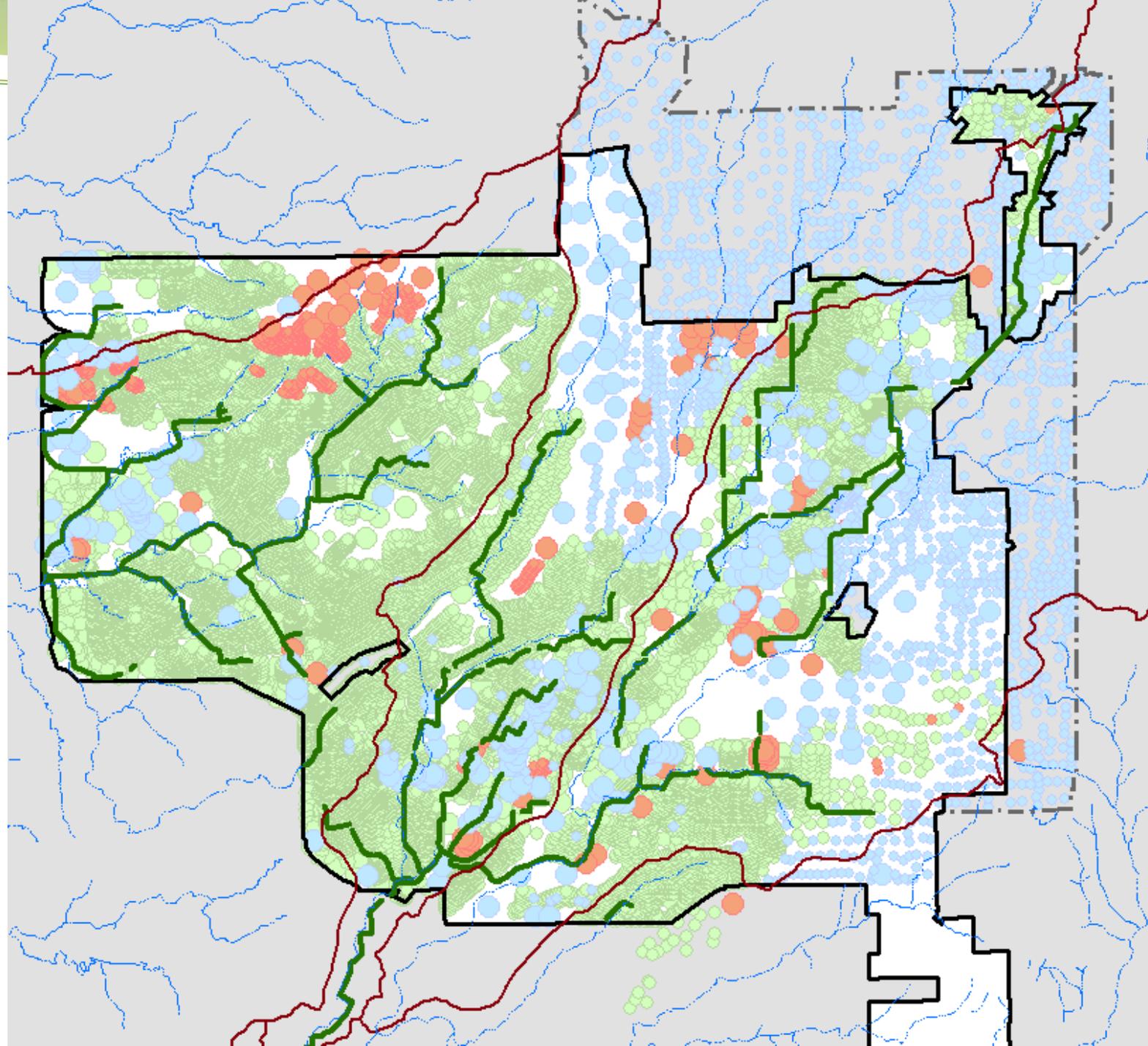
Near-Term

- Year 2025



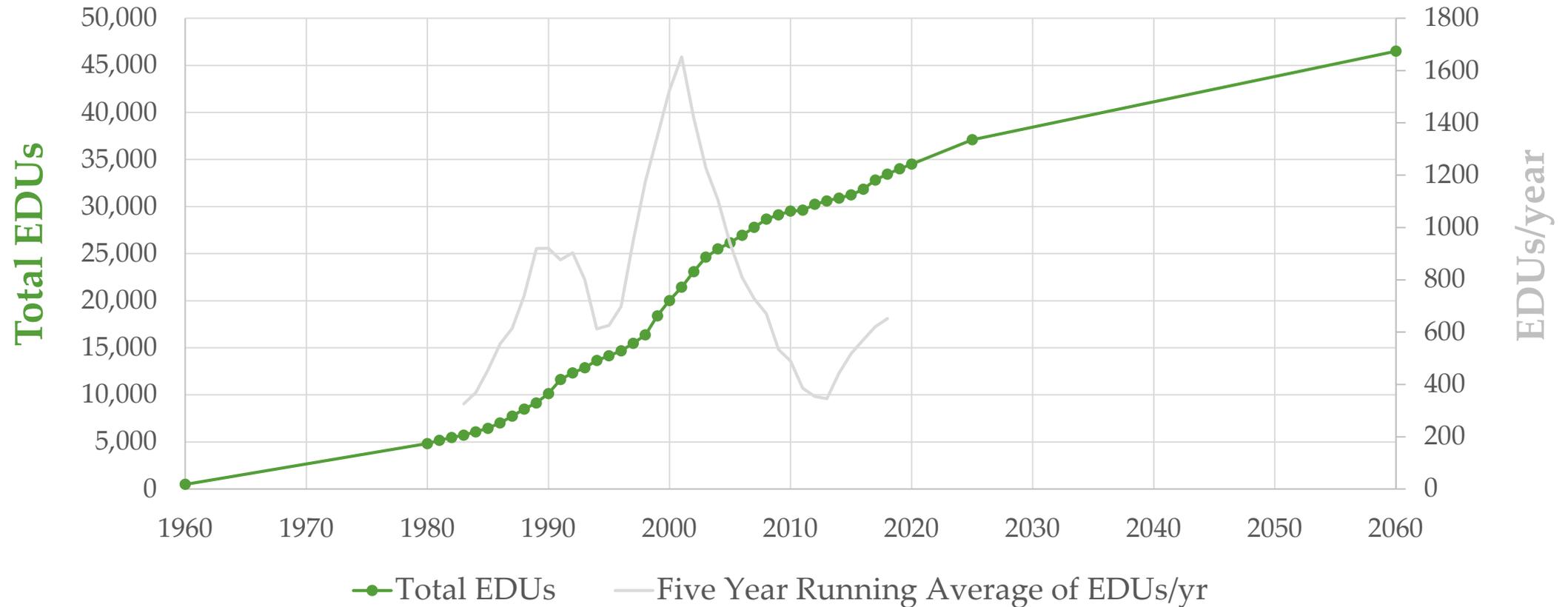
Long-Term

- Year 2060
 - (same as SPWA)
- Urban Growth Area (UGA)
 - (same as SPWA)



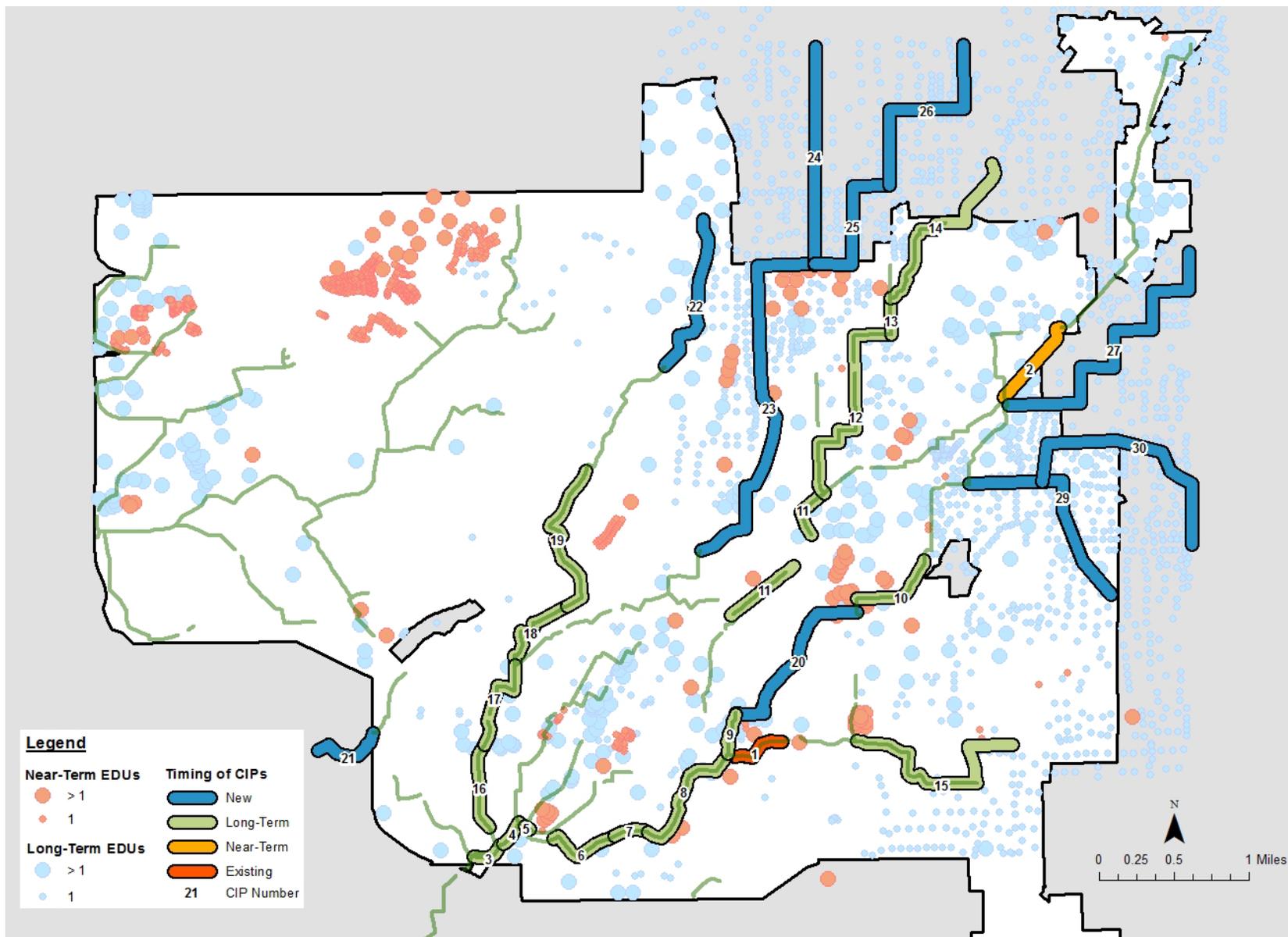
EDUs Over Time

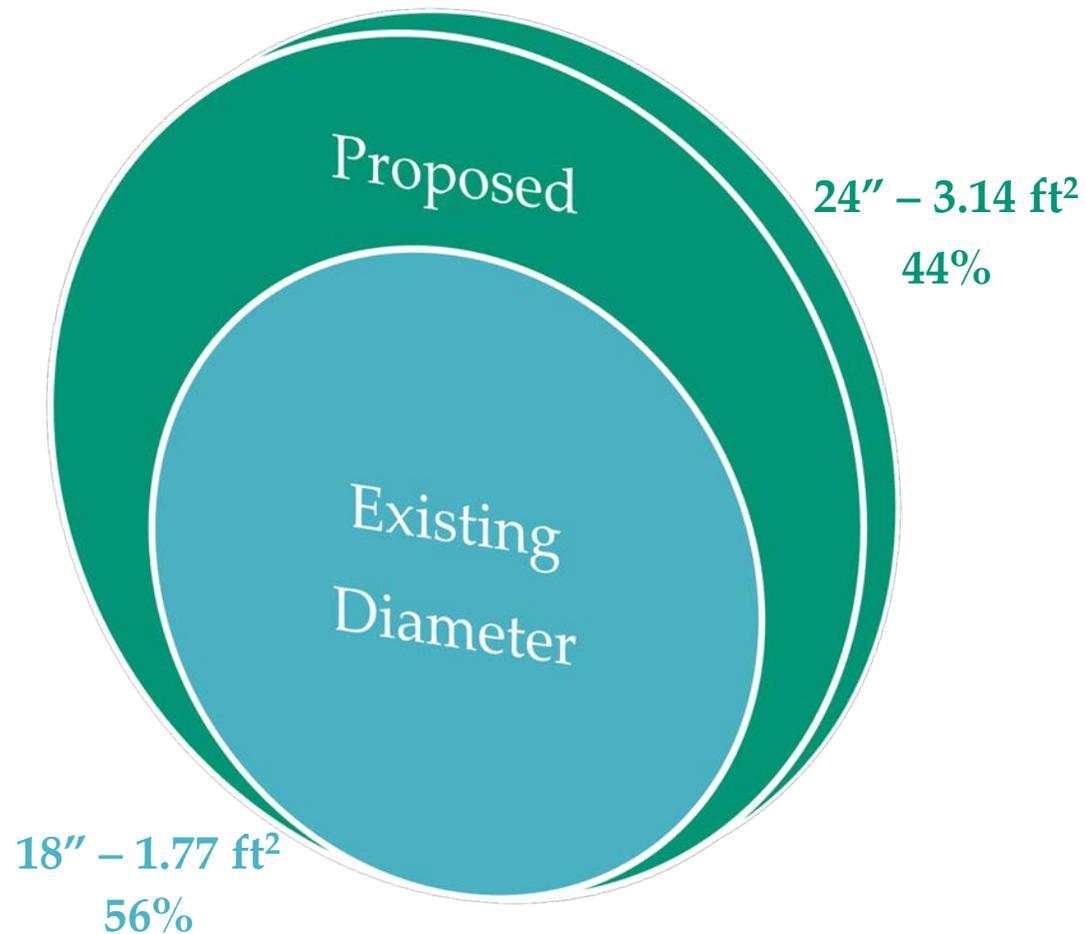
Cumulative Total of EDUs Over Time



Projects

- To provide needed capacity for planned growth





Project Costs

- Based on Schedule of Values from Resolution 18-22
- Split between
 - Fund 300 - SECAP
 - Fund 400 - R&R
 - Cross-sectional area based



Project Costs

- New Projects
 - Sierra College Trunk
 - Cameo Trunk

- Updates
 - Reviewed timing
 - Revisited naming
 - Created project IDs

2020 SECAP

	2020 SECAP Cost	2020 R&R Cost	2020 Total Cost
Total SECAP Improvement Costs	\$ 76,020,785	\$ 23,913,903	\$ 78,214,464
Existing CIP Fund Balance 2019	\$ 26,407,335	\$ 7,174,171	\$ 23,464,339
Funds needed for SECAP Improvements	\$ 49,613,450	\$ 2,391,390	\$ 7,821,446
Additional EDUs (2060)	12,320		
Resulting Participation Fee	\$ 4,027		
Total	\$ 76,020,785	\$ 33,479,464	\$ 109,500,249

	Existing Diameter	Proposed Diameter	Length	2020 SECAP Cost	2020 R&R Cost	2020 Total Cost
Existing System Improvements						
1	12"	24"	2,275	\$ 2,861,250	\$ 953,750	\$ 3,815,000
				\$ 2,861,250	\$ 953,750	\$ 3,815,000

Near-Term System Improvements						
2	1"	12"	3,240	\$ 1,390,293	\$ -	\$ 1,390,293
				\$ 1,390,293	\$ -	\$ 1,390,293

Long-Term Lower Bound Improvements						
3	24"	30"	1,170	\$ 320,432	\$ 569,656	\$ 890,088
4	30"	36"	930	\$ 233,309	\$ 530,247	\$ 763,556
5	27"	36"	1,150	\$ 89,603	\$ 115,204	\$ 204,807
6	27"	36"	2,750	\$ 1,359,111	\$ 1,747,428	\$ 3,106,539
7	24"	36"	1,260	\$ 709,985	\$ 567,988	\$ 1,277,974
8	24"	30"	4,680	\$ 1,533,569	\$ 2,726,344	\$ 4,259,913
9	18"	27"	1,530	\$ 753,375	\$ 602,700	\$ 1,356,075
10	18"	21"	7,950	\$ 506,247	\$ 1,401,915	\$ 1,908,162
11	15"	18"	4,800	\$ 811,647	\$ 1,844,653	\$ 2,656,301
12	12"	15"	8,290	\$ 1,396,757	\$ 2,483,123	\$ 3,879,880
13	8"	15"	1,290	\$ 453,224	\$ 180,164	\$ 633,388
14	8"	12"	7,220	\$ 1,619,546	\$ 1,295,637	\$ 2,915,182
15	10"	12"	5,300	\$ 1,160,944	\$ 2,638,509	\$ 3,799,452
16	18"	27"	3,120	\$ 3,043,333	\$ 2,434,667	\$ 5,478,000
17	18"	24"	3,730	\$ 1,375,418	\$ 1,768,395	\$ 3,143,813
18	10"	15"	3,260	\$ 1,052,818	\$ 842,254	\$ 1,895,072
19	8"	15"	6,250	\$ 3,047,101	\$ 1,211,270	\$ 4,258,371
				\$ 19,466,418	\$ 22,960,153	\$ 42,426,571

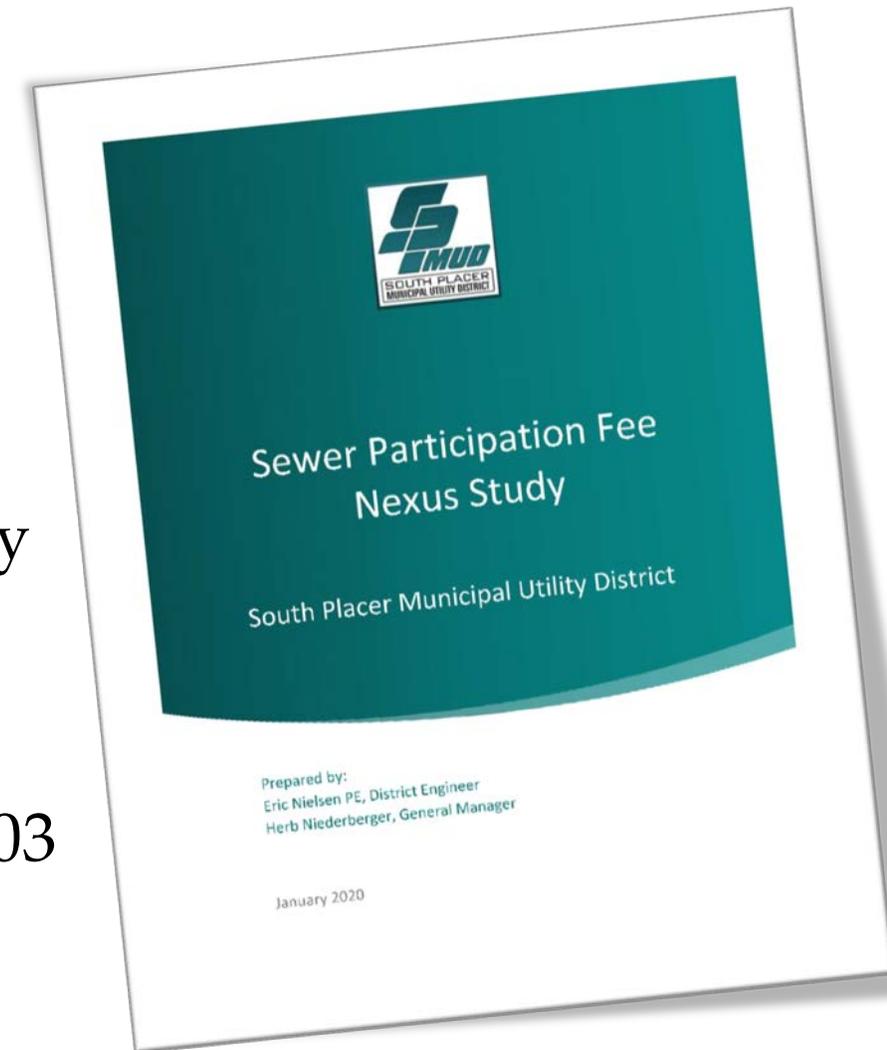
New Trunk Sewers						
20	-	24"	6,660	\$ 4,795,200	\$ -	\$ 4,795,200
21	-	15"	2,600	\$ 1,170,000	\$ -	\$ 1,170,000
22	-	10"	6,000	\$ 1,800,000	\$ -	\$ 1,800,000
23	-	15"	13,700	\$ 6,165,000	\$ -	\$ 6,165,000
24	-	8"	7,700	\$ 1,848,000	\$ -	\$ 1,848,000
25	-	10"	5,370	\$ 1,611,000	\$ -	\$ 1,611,000
26	-	8"	7,600	\$ 1,824,000	\$ -	\$ 1,824,000
27	-	8"	11,600	\$ 2,784,000	\$ -	\$ 2,784,000
28	-	EA		\$ 3,000,000	\$ -	\$ 3,000,000
29	-	12"	7,840	\$ 2,822,400	\$ -	\$ 2,822,400
30	-	10"	9,210	\$ 2,763,000	\$ -	\$ 2,763,000
				\$ -	\$ -	\$ -
				\$ 30,582,600	\$ -	\$ 30,582,600



2020 SECAP	2020 SECAP Cost	2020 R&R Cost	2020 Total Cost
Construction	\$ 54,300,560	\$ 23,913,903	\$ 78,214,464
30% Contingency	\$ 16,290,168	\$ 7,174,171	\$ 23,464,339
10% Design	\$ 5,430,056	\$ 2,391,390	\$ 7,821,446
Total	\$ 76,020,785	\$ 33,479,464	\$ 109,500,249

Nexus Study

- Compliance
 - Mitigation Fee Act – Section 66000
 - Eight steps for plan-based fee methodology
- Ongoing Administration
 - Fee adjusted annually per Ordinance 17-03
 - Report annually and every five years





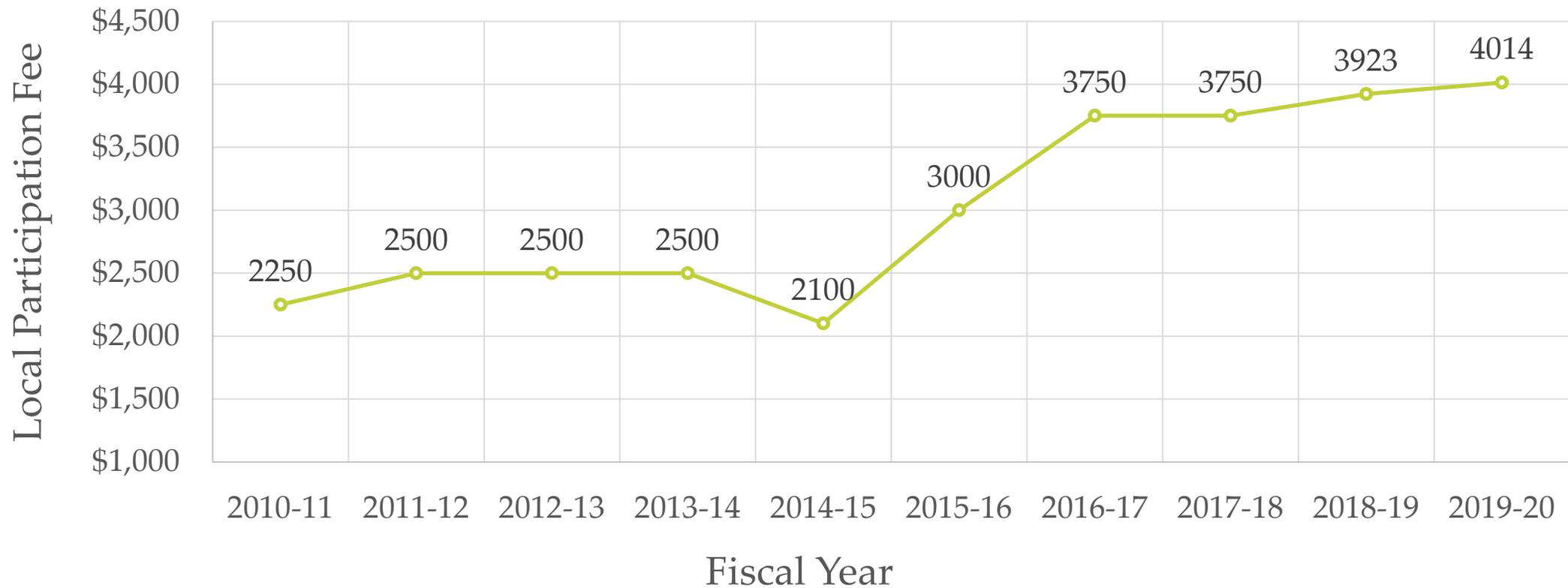
Resulting Participation Fee

Total SECAP Improvement Costs	\$ 76,020,785
Existing CIP Fund Balance 2019 (includes NSD debt)	- \$ 26,407,335
Funds needed for SECAP Improvements	\$ 49,613,450
Additional EDUs (2060)	12,320
Resulting Participation Fee	\$ 4,027

Current Fee = \$ 4,014



History of Local Participation Fee



Staff Recommendations

- Adopt Resolution 20-06
 - Accepting the SECAP
- Adopt Resolution 20-07
 - Accepting the Nexus Study

Next Steps

- Post SECAP to District Website
- Post Nexus Study to District Website
- Apply Results of Nexus Study
 - FY 20-21 fees based on results

